[redacted] R E2A [redacted]

COUNTRY : USSR

SUBJECT : MILITARY THOUGHT: "A Turning Point in the Development of Soviet Military Art", by Colonel-General Ye. Ivanov

DATE OF INFO: 1961 (Prior to May)

APPRAISAL OF CONTENT : Documentary

SOURCE : A reliable source (B).

Following is a verbatim translation of an article titled "A Turning Point in the Development of Soviet Military Art", written by Colonel-General Ye. Ivanov.

This article appeared in the 1961 Second Issue of a special version of Military Thought which is classified TOP SECRET by the Soviets and is issued irregularly. The 1961 Third Issue went to press in July 1961.

APPROVED FOR RELEASE
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A TURNING POINT IN THE DEVELOPMENT OF SOVIET MILITARY ART

Colonel-General Ye. IVANOV.

The discussion which has unfolded in the pages of the special Collection of Articles of the Journal "Military Thought" concerning the most important questions of military theory, is a notable and, in its significance, a very important, event in the military-scientific life of the Armed Forces.

This article also intends to present certain considerations on the essence of a series of questions, the examination of which, in our view, provides interesting topics for further broadening the discussion.

A CRISIS IN MILITARY ART OR A TURNING POINT IN ITS DEVELOPMENT?

In the recently published articles of certain authors, the question is posed that there have been no serious changes whatsoever in Soviet military science since the end of World War II, and that in essence it is undergoing a crisis.

"Dropping curtsies in the direction of missiles and introducing some minor corrections in the theory of military art, we still hold in practice to the old positions existing at the end of World War II. Past experience, traditions, and habits taught to us for decades, tenaciously hold us back and prevent the same kind of revolution in military art which nuclear weapons and missiles created in the sphere of armament"[1], - states Colonel-General Gastilovich. He, like certain

[1]Special Collection of Articles of the Journal "Military Thought", first issue, 1960, page 6.

other authors of articles published in the Collection, adheres to the view that the question is no more than one of adapting old forms and methods to new conditions.

It is quite obvious that such a presentation of the question is far from an objective evaluation of the state of development of Soviet military art.

Military art, being a category of history, is subject in its development to the general laws of Marxist dialectic. Therefore, it is subject in the fullest sense to the general dialectical law of development, expressed as a transfer from quantity to quality. It manifests itself in all the processes of nature, society, and thought - everywhere, where the change from old to new is under way, including the development of military affairs.

With the appearance of nuclear weapons, it has been, of course, more or less clear to everyone that they constitute a new and extremely powerful weapon, heralding the beginning of a revolution in the means of armed combat and the ways of conducting it. This revolution is going on gradually and in accordance with the development of the means of combat. It is impossible to accomplish it in a limited period of time.

Therefore, there is nothing surprising in the fact that five or six years ago, when our deliberations on the conduct of operations were based on two or three dozen nuclear weapons which could be delivered to their objectives only by aircraft, the discussion obviously could realistically concern only a partial "modernization" of certain aspects of military art, because many facts which only became known later were lacking for another approach.

The appearance of new means of combat, as the experience of military history testifies, only brings

about radical changes (a revolution) in military art when these means are introduced into the armament of troops on a mass scale, and when by these means it proves possible to accomplish a majority of the tasks arising during military operations, but this always required time. Fundamental changes in military affairs have never been accomplished with lightning speed.

In this regard it should not be forgotton that throughout the entire history of class society, the equipping of armies with new types of armament and combat equipment has, in all countries, come up against the definite limits of their economic potential, and therefore, notwithstanding the great desire of certain military figures, the process of transformation from old means of combat to new has been accomplished gradually over a definite period of time whose duration depended primarily on the productive potential of the country concerned.

In this connection, along with new means of combat, the old means continued to be used as well, from a necessity dictated not only by combat but also by economic factors.

Therefore, one should not be surprised by the fact that along with newly formulated views of military theory, the old naturally also continue to exist for a definite period. In the postwar period, a constant process of perfection of conventional types of armament, as they have now come to be called, was carried on in our armed forces. The advent of nuclear weapons and the improvement in their combat characteristics, together with the yearly increase in their scale of production, was a constant process of accumulation of qualitative and quantitative changes in the means of armed combat and consequently in the methods of waging it.

This process of development is not only as yet incomplete, but on the contrary, embraces an ever

growing field and continues to bring about ever-newer situations in military art. Nevertheless, this does not mean that certain views have not already been formulated on specific problems. It should be noted that in recent times, on the basis of theoretical research and general conclusions from the practical experience of troops, we have developed and put into effect new field service regulations, combat regulations for the various arms of troops, and instructions on the combat utilization of special troops. A great deal of work, which has on the whole been a positive contribution, has been done in examining questions of the conduct of combat and operations, especially during the initial period, employing new means of combat. During this time, our industry, on the basis of principles developed scientifically and confirmed by the Party and the Government regarding the future structure of the armed forces, and in accordance with these principles, was given the means to undertake on a mass scale the equipping of troops with missile/nuclear weapons. To ignore all this and to write about a "crisis" is to ignore all those progressive changes which have taken place and are taking place in the development of Soviet military art.

All that has been said, of course, does not mean that our military theory has already fully resolved all questions and that we have avoided all miscalculations.

Marshal of the Soviet Union Malinovskiy, in a speech at the All-Army Conference of Secretaries of Primary Party Organizations, said: "We must say directly, that in a whole series of questions we have not shown the necessary creative power, scientific daring and boldness, if you will, but have long been marking time".

Therefore, in the interests of the work itself we must talk not of a crisis in military art, which we absolutely do not and cannot have, but of those weak

points in military theory which are in fact at the turning point in their development.

FOR WHAT TYPE OF WAR MUST WE BE PREPARED?

One of the most important questions raised in the pages of the Collection, is the question of Soviet military doctrine. The increased interest in its development is completely understandable. At the present time our armed forces find themselves at ~~the~~ a turning point of their development; therefore, a further intensive analysis of military doctrine naturally assumes paramount significance.

M.V. Frunze, defining the concept of "a unitary military doctrine" pointed out that it is a "syllabus adopted in the army of a given state, which establishes the nature of the structure of the armed forces of that country, the methods of combat training of troops, their leadership on the basis of the predominant views in the state on the nature of the military problems facing them and the means for solving them, and which emanates from the class nature of the state and the computed level of development of the productive forces of the country".[1]

From the definition it is apparent that M. V. Frunze places prime importance on the question of the nature of the structure of the armed forces, which depends above all on the level of development of the productive forces of the country, on its economic potential. The question of the economic potential of our country arouses no doubts in any of us. Our

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[1] M.V. Frunze. Collected Works. Vol. II. Military Publishing House, 1957, page 8.

socialist state is in a position to provide the armed forces with all presently known means of armed combat.

However, there are examples in military history when economically strong countries, not lagging behind their adversaries with regard to the equipping of their own armed forces with weapons and combat equipment, have yet suffered most devastating defeats.

Why? In a number of cases this occurred because military-theoretical thought in the prewar years could not correctly resolve the question of the type of war for which its armed forces should be prepared.

For example, prior to World War II the armed forces of France and fascist Germany had approximately the same level of equipment in aircraft, tanks, and artillery. However, France suffered a swift defeat in the war. Among the host of reasons which brought about her capitulation to fascist Germany, of no small significance was, as is known, the fact that French military doctrine was based on the principles of defensive strategy, but the German, on offensive. Subsequently, as is known, fascist Germany also suffered defeat, while having as the basis of its military doctrine the adventurist idea of waging a blitzkrieg.

Consequently, to resolve correctly the question of the character of the structure of the armed forces, scientifically based recommendations of military theory are necessary, especially on such questions as the character and possible duration of a future war and also the methods of waging armed combat, which arise from the aims and objects of war as defined by the political leadership.

During the past few years, these very questions have been the subject of heated controversy.

What conclusions, for example, are to be drawn from the ideas of Colonel-General Gastilovich on the nature of a future war, its duration in general, and its initial period in particular, "There is no need to fear the term 'blitzkrieg' .... Under the conditions of nuclear war only 'blitzkrieg' operations can promise victory." "Under present conditions the possibility of victory must be assured by the readiness, the capacity, and the capability of concluding the war in the shortest possible time. The theory of a prolonged war is more acceptable at present to the monopolistic circles of the West..." "Taking over the border zones and the zones of total destruction and radiation .. will not at all necessitate multi-million man armies". So writes Colonel-General Gastilovich.[1]

In almost the same spirit General Goryainov writes: "The missile/nuclear weapon has become (or can become) a mass weapon and its destructive and in particular its radiological qualities (a reference to megaton bombs - Ye. Ivanov) are actually capable of creating conditions in which the fundamental object of war - the destruction of the enemy - can be accomplished technically in a short period of time and without over-taxing the economy of powerful industrial countries".."just a few hundred powerful nuclear bursts will be the primary and decisive factors affecting the outcome of the war .. the initial period of a war becomes its decisive period."[2]

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[1] Special Collection of Articles of the Journal "Military Thought", first issue 1960, pages 9,10.

[2] Special Collection of Articles of the Journal "Military Thought", second issue 1960, pages 97,101.

If one were to summarize briefly all the quotations mentioned above, having cast aside certain reservations which the authors occasionally make with regard to ground troops and other types of armed forces, they could be said to be, essentially, exponents of an "atomic blitzkrieg". They consider that a future war will have a rapid, blitzkrieg character; its outcome will be decided by the first missile/nuclear operations for which only some few hundred thermonuclear warheads need be expended; that it is not necessary to have a multi-million man army for waging war, and the basic function of the small number of ground troops in a war should be confined to the occupation of enemy territory.

What would happen if these views were to be legitimized and raised to the status of fundamental principles of our military doctrine? First, our armed forces would be subject to one-sided orientation in their development, with all the consequences resulting from this, and secondly, in essence, we would be forced to abandon that versatile training of the troops which we now conduct, counting on a fierce and relatively extended armed conflict with the powerful coalition of the imperialist countries. Such an approach to the organization of the armed forces and their military training would be one-sided.

A future war in its political essence will be a decisive armed conflict between two world socio-economic systems - capitalist and socialist. A struggle between them will involve two of the most powerful military coalitions, armed as never before and possessing colossal material and manpower resources. Therefore, no matter what losses single governments would suffer in the beginning of the war, serious consideration must be given to the fact that a coalition of nations as a whole can prove capable of waging armed combat over a considerably protracted period.

Without a doubt, massive missile/nuclear strikes of a strategic nature in the very beginning of the war

will create conditions for the accomplishment, in the initial period, of results that bear no comparison with the results achieved during the initial periods of previous wars. Naturally, this will have a very great influence on the conduct and the general duration of the war.

However, to orient oneself in building the armed forces and preparing the country for a war in which the initial period will be decisive for the achievement of the ultimate goals of the war, would be completely unfounded.

Indeed, Comrade Goryainov admits to the possibility, and with this one cannot disagree, that once a war has begun, the situation could arise where the strategic missile troops of both sides, for a number of reasons, might be only partially successful in their aims and not achieve a decisive effect. For my part I will add: One cannot base one's estimates in war only on the availability of one's own means of destruction and not consider the means of destruction and counteraction open to the enemy, particularly the means of antimissile defense which are now being developed rapidly. We may guess at the enemy's plans, but it is he who carries them out, and his actions, as the experience of all wars can testify, usually introduce substantial changes in our plans. Therefore, in the evaluation of the initial period of a war and consequently of the direction of organization of the armed forces, we should not in principle base our ideas only on the possible decisive role of this period, but must be prepared for the continued conduct of numerous operations with all types of armed forces even in the ensuing periods of the war.

At the same time we certainly must not underestimate the definite role, in the light of known conditions, of the first operations of the initial period of the war and the possibility of destroying the aggressor in a short time.

To deny this would be to stand out against a fully comprehensive approach to the preparation of our armed forces. In these questions there should be no extreme.

The Minister of Defense points out: Having ensured the security of our Motherland, we must develop and perfect the means and methods of armed combat with a view to achieving victory over the aggressor above all in the shortest possible time, but at the same time we must seriously prepare for an extended war, and this determines the direction of our military organization. Such is the only kind of approach to this question that we too can consider legitimate.

The basic content of the initial period of war can consist of: the disruption and repelling of the first blow of the aggressor on the ground, in the air, and on the sea; the inflicting upon him of a shattering blow designed to disorganize the governmental and military leadership and also the destruction of the most vital economic targets, especially industrial enterprises connected with the production of means for nuclear attack; conducting initial operations with all types of armed forces in close coordination in order to accomplish the most immediate military-strategic tasks and the early seizure of the strategic initiative.

The fulfillment of these tasks will doubtless create the necessary prerequisites for the swift conduct of the war and the achievement of final victory. But the prerequisites are not victory itself. Military history indicates that armed forces which have successfully started a war can in the final analysis end up vanquished, and the first blows suffered by an army at the beginning of a war still do not signify final defeat.

Consequently, it behooves us to take as our starting point the fact that for the successful conduct of, and final victory in, a war, colossal efforts of the armed forces and the entire state as a

whole may be required. Massive armies and the mobilization of all the moral and physical strength of the people and of the economy of the country will be essential.

A position in which the decisive role for the achievement of the primary objectives of the war is delegated to missile troops of strategic designation certainly does not mean a reduction in the utilization of ground troops, but on the contrary indicates a more important need for them on the basis of their potential capabilities.

It is incorrect to count on their being, as a result of the extensive utilization of missile-nuclear weapons on the field of battle, a completely dead zone, and that there will be nothing left for our troops to do but to move effortlessly into the heart of the enemy countries to carry out occupation functions.

For the final defeat of an enemy and the seizure of his territory following nuclear strikes by missile troops of strategic designation, regardless of how powerful the strikes might be, it will always be necessary to bring in a sufficiently large number of ground troops. Without this, it would be difficult to predict the possibility of concluding any kind of war.

Therefore, a very important role will belong to the ground troops in the attainment of the final aims of a war. They have all that is necessary to carry out this role. Their firepower and striking force, together with their supply of missile weapons with nuclear warheads, the full motorization of troops, and the growth in the relative importance of the tank troops have increased sharply and in consequence their significance in the light of the new conditions of armed combat has not diminished.

THE USE OF MISSILE TROOPS OF STRATEGIC DESIGNATION

Prior to the placing of missile/nuclear weapons in the hands of the strategic leadership, there existed, in fact, no means by which the progress of a war could be quickly and decisively affected. Even in World War II, although our bomber aircraft could already deliver bombs of rather significant force, these could not be sufficiently powerful to have a swift and direct influence on the outcome of the war. Therefore, strategy achieved its goals through the successive waging of many battles, engagements, and operations, all leading, in the aggregate, to a specific strategic result.

An entirely new factor under present conditions is that such powerful means as various forms of missiles, among them intercontinental ones with hydrogen warheads, are in the hands of the strategic command. With the assistance of such means, the strategic command has the capability to fulfill directly and independently (and not only by protracted engagements and battles between ground troops as was actually the case in the past) in the very shortest period, exceptionally important missions, even to the destruction of a number of countries of our probable enemies, along with their armed forces, in any part of the globe.

Consequently, under present conditions, in order to decide correctly questions about the nature of operations and to determine the methods of combat operations of the troops in an operational element, it is necessary to clarify fundamental principles regarding the use of the strategic striking forces - the missile troops of the VGK (Supreme High Command).

Missile troops of strategic designation are the decisive striking force and the wielders of the strategic power of our armed forces. They will carry out the most important tasks in the disruption of the

enemy rear, his economy, and systems of governmental control by destroying his strategic means of armed combat.

Given these capabilities, it may be assumed that they can be used suddenly, in mass, against the main enemies, with the intention of achieving a strategic result in a short period. In this sense, the most important objectives for strikes of the strategic missile troops will be the enemy's means of nuclear attack, against which it is primarily necessary to launch missiles of intercontinental and intermediate (srednyaya) range types, and also his strategic aviation, centers of governmental and military control, the most important economic objectives, especially those connected with the production of nuclear weapons, and other important aspects of his war potential.

The decision regarding the question of objectives, the timing and force of the strikes of the missile troops of strategic designation, is entirely and completely the prerogative of the Headquarters (Stavka) of the Supreme High Command, and will depend on the capabilities of the country to adopt missile/nuclear strategic weapons and also on the concrete conditions of the situation, of which the political factor will be the decisive element.

It is not the intention of this article to analyze the possible role of the High Command with missile troops in the organization and execution of the strikes which have been decided, but we would nevertheless like to emphasize that this role, in our view, should be kept within firmly defined limits, since every such strike is a most important factor of policy and strategy, and accordingly should be carried out in all its details on direct orders of the Supreme High Command.

In our theory, the question frequently arises of the participation of ground troops or their missile large units with the advent of war in "missile operations" of the strategic missile troops and, conversely,

of the participation of the missile troops of strategic designation in the operations of ground troops. The posing of such questions has no sound basis.

Indeed, military-industrial objectives, the largest administrative-political centers, and the strategic means of nuclear attack of the imperialist governments, all of which are designated for destruction by the missile troops of strategic designation, are deployed over a great expanse of the globe. They are located in Europe, Africa, Asia and America.

In turn, our missile troops of strategic designation are also deployed over an enormous area. Therefore, under these conditions there is hardly any sense in speaking of the concept of direct coordination and execution of joint strikes by the strategic missile troops and missile large units (units) of the ground troops. We can only say that the successful accomplishment of their basic missions by the strategic missile troops will create favorable conditions for vigorous and decisive operations by all the other types of the armed forces, including the ground troops.

It is true that observations have been made to the effect that together with the execution of the missions enumerated above, missile troops of strategic designation will also be used for the accomplishment of such missions as the defeat of groupings of ground troops in a theater of military operations, the destruction of the enemy's operational means of nuclear attack, and other objectives. And in light of this, an attempt is made to analyze the bases of coordination between missile troops of strategic designation and missile large units of ground troops. It appears to us that such a presentation of the question is also devoid of a realistic base.

The efforts of missile troops of strategic designation should not be dissipated over numerous targets, just as in the years of World War II it was

considered irrational to use long-range aircraft for strikes against operational objectives. If we did so at times, then it was a case of extreme necessity because of a front's lack of aircraft.

To plan beforehand for the execution of operational missions by the strategic missile troops is not expedient. For this reason, the missile troops of the ground troops, continually being supplied with more highly perfected types of missiles, will be able to destroy enemy objectives to a greater depth than is now possible, and this will ensure the successful execution of front operations without the involvement of strategic missile troops.

The strikes of the strategic missile troops must, in the final analysis, predetermine the attainment of the principal goals of the war -- in this lies their fundamental purpose. Their basic efforts must be focused on the attainment of these goals.

ARE THE DISTINCTIONS BETWEEN OFFENSE AND DEFENSE BEING OBLITERATED?

If one were to analyze carefully the judgements of General Gastilovich, then it would not be difficult to come to the conclusion that defense as a form of armed combat has disappeared or is on the threshold of disappearing because it has somehow lost its inherent characteristic -- to hold designated lines or areas with the object of inflicting maximum losses upon the advancing enemy and, in doing so, to create the necessary conditions for a transition to a decisive offensive. He sees the distinction between defense and offense only in the number of nuclear weapons, of divisions, and the composition of echelons. As to the means of conducting combat operations, they are, in his way of thinking, the same in offense as in defense.

"In offensive as in defensive operations of ground troops, the basis of their operations is nuclear strikes, swift maneuvers and short assaults with tanks and manpower".[1]

If one is guided by the materialistic dialectic and also proceeds from the actual relationship of the strength of the opposing military groupings, then it is obviously impossible to agree fully with these assertions.

We all acknowledge that offense will be the basic form of combat operations of our troops in a future war. But in acknowledging offense, we cannot deny the necessity for defense as one of the possible forms of armed combat, because if there is no defense then there is no offense. Offense is so called because it is waged against a defending enemy. Without the presence of a defending enemy the troops would execute a normal march. Offense and defense are two inter-related and interdependent forms of armed combat, and one cannot exist without the other. Such is the dialectic of this question.

In the judgements expressed above, it appears that consideration has not been given to the capabilities of our potential enemies.

Actually, the countries of the Socialist Camp are militarily, politically, and economically strong as never before. However, in preparing for war and exploring new methods of armed combat, we cannot assume that our probable enemies are not technically armed, as they say, to the teeth. They have multi-million man armies, they possess enormous stocks of nuclear weapons and modern means of delivering them to their targets. Therefore, to consider that we will not encounter serious counteraction from their side is a fallacy. Moreover, a new world war can only be unleashed by the imperialist aggressors, primarily by the Anglo-American

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[1] Special Collection of Articles of the Journal "Military Thought", first issue, 1960, pages 12, 13.

imperialists and the West German revanchists. Consequently, they will be the first to try to carry out a massive missile-nuclear attack which will be followed by an invasion of ground troops. The effects of a missile-nuclear strike can be very tangible not only for our country but for the entire Socialist Camp as well. The enemy can take the initiative in his hands in specific sectors of a strategic front and compel our troops to resort temporarily to defensive operations. Not to consider this and to reject completely the possibility of such a development in specific directions -- means to close one's eyes to reality, to indulge in "counting one's chickens before they are hatched" (shapkozakidatelstvo).

We maintain that a future war will have not only an all-embracing, but a many-sided character, with varied forms of armed combat. Consequently, our task does not consist of artificially simplifying them but of thoroughly studying currently existing methods of combat, of evaluating them objectively and correctly, and of devising new ones.

The more versatile the preparation of our armed forces from the point of view of their mastery of all possible forms and methods of armed combat, the higher will be their combat readiness and the greater will be our guarantee against any type of surprise or incident in the course of a war. Such is our understanding of this question of the plan for waging war.

But how does this question fare within the framework of an operation? Under modern conditions, defenders who are launching massive missile-nuclear attacks on an advancing force can in a number of cases change decisively the correlation of forces to their own advantage and force it to turn to defensive operations, and sometimes to retreat.

In this connection one of the characteristic features of an offensive operation in depth under conditions of mass use of missile/nuclear weapons is

the variety of forms and methods of waging it and also the dynamic nature of their change: swift pursuit and solid, vigorous defense, meeting engagements, and retreats, combat under encirclement and disengagement from combat -- such is the possible general picture of development in a modern offensive operation. Every form and method of armed combat has characteristics, peculiarities, and modes of conduct which are inherent to it alone. Therefore, the mission of military art is not confined to the artificial elimination of distinctions among them, nor to the forcible abolition or coalescence of methods but to developing a theory for their organization and conduct under conditions of a missile-nuclear war.

Much attention is devoted by certain authors to an examination of the methods of conducting defense. They consider that to defend oneself now is senseless. Nuclear weapons overwhelm and destroy everyone everywhere; it is unnecessary to hold areas and positions, just as it is impossible to maintain their stability.

In our opinion, defense on an operational as well as a tactical scale must be able to withstand enemy missile/nuclear strikes and the subsequent tank assaults to preserve to the maximum possible degree one's own personnel and equipment, to inflict the greatest destruction upon the enemy, and to create the necessary conditions for going over to the offensive and the final destruction of the enemy, even in a situation where the defending troops employ limited forces and weapons. Such a mission for defense under modern conditions is typical, the more so because the attacker will not always and everywhere have the capability to overcome the defense by massive nuclear strikes.

Can one, under current conditions, argue strongly for a defense based only on maneuver and strikes by forces located in the zone of the interior? Our reply to this is in the negative.

Defense, with its inherent peculiarities and methods of conduct under modern conditions, must be built on a skillful combination of firm holding of definite areas of terrain together with maneuver and strikes by troops from the zone of the interior. Maneuver must be utilized mainly for the preservation of one's own limited forces and weapons, the creation of a firing line which is invincible to the enemy in the primary directions of his offensive and also for the launching of fire strikes and the execution of counterattacks and counterstrikes.

To relegate "stability of defense to the archives" as General Gastilovich proposes -- means to deny that premise on which is based the modes and methods of operations by troops in defense.

Such an assertion is all the more untrue if one keeps in mind that stability of defense is not exhausted by the creation of defensive positions and zones by the organization of terrain by engineer work. This is just one of the factors upon which stability depends. Stability of defense must be achieved by other factors as well, foremost by missile-nuclear strikes, strikes by troops and an extensive system of obstacles. Even formerly one could not talk about any sort of stability of defense without maneuver, fire strikes, and strikes by troops.

Missile/nuclear weapons in the hands [of defensive troops affords them the possibility of] completely frustrating [the enemy's offensive.][1] But this possibility in no way denies the necessity for the formation of defense according to a definite system. The deployment of troops in tactical as well as in operational elements must be subject to definite requirements and must guarantee not only the accomplishment of maneuver, but also the holding of basic areas in the probable directions of the enemy's offensive.

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[1] Headquarter's Comment: Portion in brackets missing from the original and reconstructed by translator.

Today there is a series of "weak spots" in our defense. Basing its organization on defensive zones and positions, to a large extent it retains a linear concept. The deployment of forces and weapons along solid frontal positions and zones gives rise in a number of cases, as experience in exercises demonstrates, to the desire to close the gaps and breaches which leads to the linear deployment of forces and the establishment of a continuous front.

As a result of the radical changes which have taken place in the means of armed combat and also in the methods of our probable enemies in conducting an offensive, the necessity for a reappraisal of the forms of organization of a modern defense has obviously arisen.

A defense strip (zone) of an army must obviously have a system of organized areas capable of withstanding massive enemy tank attacks, of disrupting the efforts of his ground troops, and of creating favorable conditions for inflicting on them not only nuclear strikes but also counterstrikes by our own forces from the zone of the interior.

Within a defense strip (zone) of an army, which can reach 150-200 kms and more along the front and 150-200 kms in depth, it is expedient to assign to divisions defense areas which embrace the basic directions of the probable offensive of the enemy.

In the defense strip (zone) of an army the following must be prepared, siting areas for missile large units, areas of defense for divisions; siting areas for units of PVO troops, areas of disposition and lines of deployment of large units of the second echelon and reserves; control points; a road network, and a system of obstacles set up by the engineers.

The area of defense of a division must also be a system of organized areas of defense for units deployed along the front and in depth along the most important directions. The size of the area of defense for a division can vary.

Within the area of defense of a division there must be organized siting areas for missile and anti-aircraft missile units, areas of defense for regiments and battalions, artillery fire positions, control points, and areas of disposition and lines of deployment of second echelons and reserves.

The area of defense for a regiment under these conditions can reach 10-15 kms along the front and 10 kms in depth, and for a battalion, from 3 to 5 kms along the front and 2.5-3 kms in depth. All areas of defense must be adaptable to perimeter defense.

The basis of organization of areas by engineer work should be primarily construction for fire means, cover for personnel and combat equipment, preparation in the antiatomic sense in combination with obstacles and roads in order to support a troop maneuver, and not the construction of a solid trench system. Sectors of trenches and connecting trenches can be established only in the areas of defense of subunits, and even there only if time is available. The intervals between areas of defense must be covered by fire, obstacles, and, on the most important directions, also by missile/nuclear strikes.

The organization of the defense must be begun with the organization of a system of fire which must guarantee: the destruction of the enemy's means for nuclear attack as they are discovered; the destruction of his troops and areas of deployment at the time of advance, deployment and, transition to the offensive; the repelling of massed attacks by enemy tanks and infantry; destruction of scattered enemy groupings; destruction of control points and his radiotechnical equipment; covering with fire the obstacles and areas of chemical contamination, breaches, open flanks, and areas subjected to nuclear strikes; the support of troops launching counterattacks and counterstrikes; the capability of concentrating fire in a short time in any threatened direction.

It is essential to plan beforehand the areas of destruction by enemy fire both in the remote approaches and the main line of resistance, and on the flanks and in gaps, and in the depth of the defense, and also to prepare artillery fire for separate sectors.

CONCERNING THE COMPATIBILITY OF MISSILE/NUCLEAR STRIKES AND OPERATIONS OF TROOPS

Nuclear weapons are the main, most powerful, and most effective means of destroying an enemy carrying out any type of combat operations. Naturally, therefore, the results anticipated from their use must be the basis for solution of the question of using combined-arms large units.

However, missile/nuclear strikes in their turn should be carried out with the aim of creating more favorable conditions for troops to accomplish the final crushing of the enemy and to seize those areas and objectives which are designated as the aims of the operation. The troops must be prepared in such a way, and occupy such an operational position, as would permit them to utilize to the greatest extent the results of missile/nuclear strikes.

In this connection, we consider it necessary to dwell on the question of the selection of the direction of a strike by troops and of determining the timing of nuclear strikes.

The main efforts of combined-arms large units under modern conditions need not always focus only in those directions where the main bulk of nuclear weapons is employed. The concentration of the main efforts of the troops in the direction of the employment of the main bulk of nuclear weapons, in many cases, will not permit the speediest and most complete exploitation of the results of the action of all the destructive factors of nuclear strikes and the achievement of the maximum destruction of the enemy.

Thus, during a breakthrough in the prepared defense of the enemy, with the objectives of achieving the maximum destruction of defensive installations, the destruction of combat equipment and personnel, the creation of high levels of radioactivity to impede the establishment of defense and the introduction of fresh forces, it can be incomparably more advantageous to employ surface or low altitude bursts. Under these conditions, the main efforts of the advancing troops will be more advantageously concentrated by bypassing the areas which have undergone a massive nuclear strike.

The concentration of the main efforts of troops in the direction of nuclear strikes can also prove inexpedient during an offensive through heavily wooded areas. Fires, log obstacles, the retention /two or three words missing/ of the /one word missing/ time of choosing /part of line missing/ of troops in the areas of nuclear bursts. In these cases, if only the possibility of envelopment exists, it is essential to use it decisively, and to effect the destruction of the enemy in the forest with powerful nuclear strikes.

A somewhat similar situation can take place if the attack comes through areas with large cities where the operations of troops after nuclear strikes could prove very difficult.

The direction of the concentration of the main efforts of combined-arms large units and of missile-nuclear weapons can also differ owing to the delineation of the line of the front. When a flanking position has been taken up in relation to the main enemy grouping, it will often be more expedient to concentrate the main efforts of the missile/nuclear weapons directly on this enemy grouping and to launch the strike by troops in an enveloping movement -- on the flank and rear.

There can be other conditions of the situation when the direction of the concentration of the main

efforts of the troops will not pass through areas of employment of the main bulk of missile/nuclear weapons.

Consequently in this question we are faced with a new law in military art, the essence of which consists of the fact that modern means of combat not only allow but very often obligate the separation, in relation to space, of the strikes launched by nuclear weapons and by troops.

This necessarily applies to considerations of the antiatomic protection of all forces and weapons designated for an offensive, as well as to considerations of the most effective use of all the destructive factors of nuclear weapons.

In determining the timing of launching nuclear strikes, we shall also encounter a new situation which cannot be ignored. As is known, in World War II, we did not usually begin artillery and air preparation if the troops were not completely prepared to advance. And how must we resolve this problem under present conditions?

In principle, it is desirable that the time for the launching of missile/nuclear strikes be determined after a consideration of the operational situation and of the readiness of the troops for the most effective utilization of the results of these strikes. This, however, is only in principle. If there is reason to assume that the enemy can effect a preventive strike, then it is essential to launch one's own nuclear strikes against him without delay, not waiting for the complete readiness of all the troops predesignated for the offensive, because every delay in the missile/nuclear strike in the beginning of the operation is fraught with the danger of its frustrating the offensive.

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In conclusion, we consider it essential to emphasize once again that at the present time it is our deep

conviction that Soviet military theory is passing not through a period of crisis, but through a turning point in its development.

In the light of this situation, as it appears to us, it is also necessary to conduct a further elaboration of military doctrine, of the theory of military art, and of other questions of military affairs.